EFFECT OF COOPERATIVE LEARNING STRATEGIES ON ACADEMIC BEHAVIOUR AND SELF-MONITORING SKILLS OF ATTENTION DEFICIT HYPERACTIVITY DISORDER (ADHD) STUDENTS

A

Revised Synopsis

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1.0.0 Introduction of the Problem

All living creatures' individuality differs with integral capacities but a fruitful conducive educational environment can create equal opportunity for the development of their innate capacities. Many educationists gave emphasis to create such facilitates learning environment which fulfills their needs to cater their individual differences.

Classroom is a place where different students come together to take education. As all the letters of alphabets having different shapes plays an important role in language development in the same way students of different interests, attitudes, skills and life goals study in the same class and contribute themselves for National Development. A student with a wide range of diversities lack attention in understanding the concepts but this lack of attention may be due to ADHD. But sometimes all these are not determinants of attention. It means sometimes lack of attention is not related to interests and life goals of the child. This attention distraction can be a part of a disorder, known as ADHD.

"There will be obstacles, there will be doubters, there will be mistakes but with hard work there are no limits" Michael Phelps (Athlete in Olympic history and a father with ADHD)

ADHD is one of the most common neurodevelopmental disorders in childhood and often lasts till adulthood. Children with ADHD may have trouble in paying attention, controlling impulsiveness and suffer with over hyper- activeness.

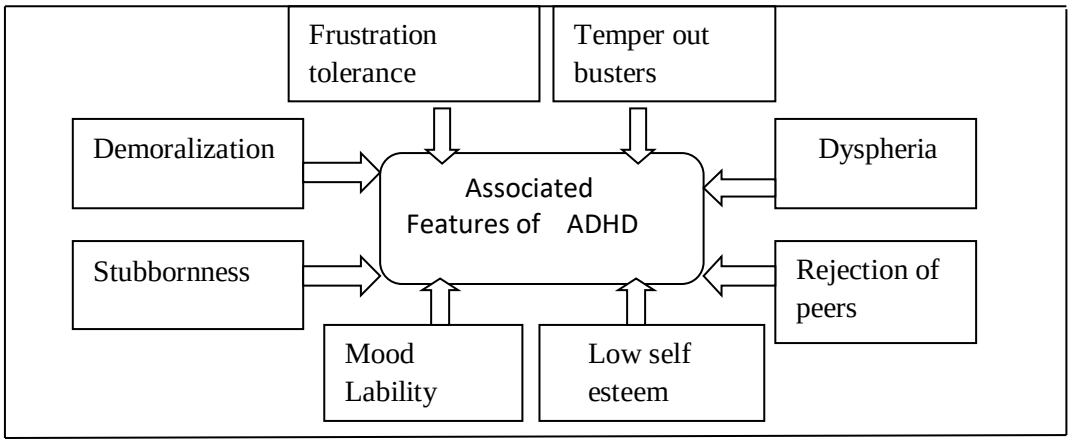

Figure.1.1 Associative Features of ADHD

"ADHD is not about knowing what to do but about doing what one knows."Russell Barkley

Attention deficit hyperactivity disorder (ADHD) is highly prevalent and chronic mental health disorder that is often associated with functional impairment across a range of domain eg. academic, functioning ,peer relations, emotional functioning.(Currie & Stablic ,2006:Hoza et.all 2005;Spira & Fishel 2005;Harpin ,2005;Matza Sacnik ,Maniv &Sailee,2005 Varri & Bur winkle 2006)

ADHD is neurobiological based disorder which is characterized by some observable behaviors like inattention, impulsivity, hyperactivity. Barkley is one of the world's foremost researcher believes that all these characterized behaviors belong to a deeper underlying problem. The primary problem is inhibiting bahaviour and controlling the impulse to respond the situation. Teacher typically thinks that such children are just lazy and demotivated because they overlook in such way. They don't have problem of lack of skill but the problem is how to apply the skill in a particular situation. The following mind map represents the classroom behaviour of ADHD students:

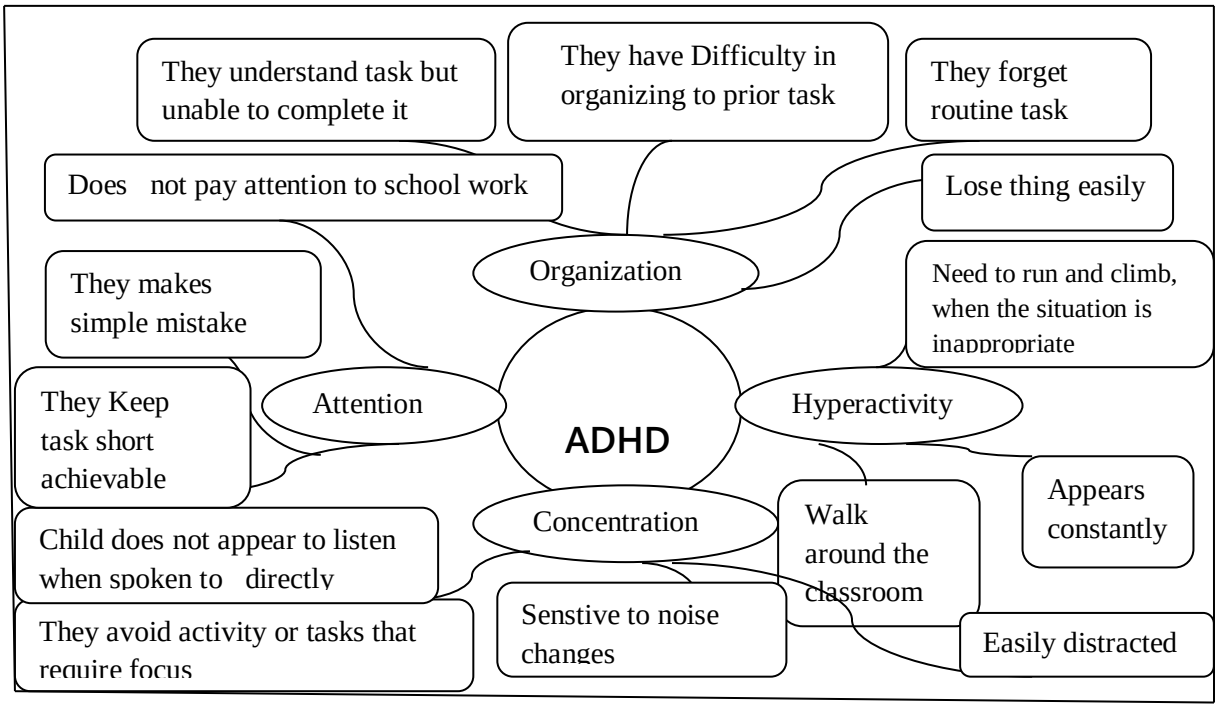
They understand task but unable to complete it
They have Difficulty in organizing to prior task
They forget routine task
Does not pay attention to school work
Lose thing easily
Organization
They makes simple mistake
Need to run and climb, when the situation is inappropriate
They Keep task short achievable
Attention
ADHD
Hyperactivity
Appears constantly
Concentration
Walk around the classroom
Child does not appear to listen when spoken to directly
Senstive to noise changes
Easily distracted
They avoid activity or tasks that require focus

Figure1.2 Showing classroom behaviour of ADHD Students

1.1.1 Historical Perspective of ADHD

In the year 1800 sir Alexander Crichton coined the phrase The "Fidgets for patients'' who showed mental restlessness and inability to maintain concentration. Attention Deficit Hyperactivity Disorder was first confined by George Still in British Pediatrian in 1902.He describe it as "an abnormal defect of moral control" in children.He found that some children can't control their behaviour.He found that they were typical child but they were still intelligent. American Psychatric Asociation issued the first "Diagnostic and Statistical mannual of mental disorder" (DSM) in 1952.This edition include all the recognised mental disorder.In this Edition Minimal Brain Dysfunction term is used APA does not recognised this disorder in first Edition.In second Edition of DSM (1968) include the term"Hypercenetic impulse disorder ''for the first time.In third Edition of DSM (1980) they recognised ADHD as ADD.In revised Edition DSM(R)1987 changed the name to ADHD.The APA combined three types of symptoms it does not give any classifiction.DSM fourth (Edition 2000) establised the three types of ADHD.Finally in DSM fifth (Edition 2013) the term kept as ADHD.

Table.1.1 Establising the Developmental Growth of Concept of ADHD

DSM Edition	**Year**	**Terminology**
DSM I	1952	Minimal Brain Dysfunction term was used.
DSM II	1968	Hypercenetic impulse disorder term was used.
DSM III	1980	Attention deficit disorder term was used.
DSM III (R)	1987	Attention deficit with or without hyperactivity term was used.
DSM IV	2000	Three type of ADHD inattentve, hyperactive combined were identified.
DSM V	2013	ADHD term was kept in this edition of DSM

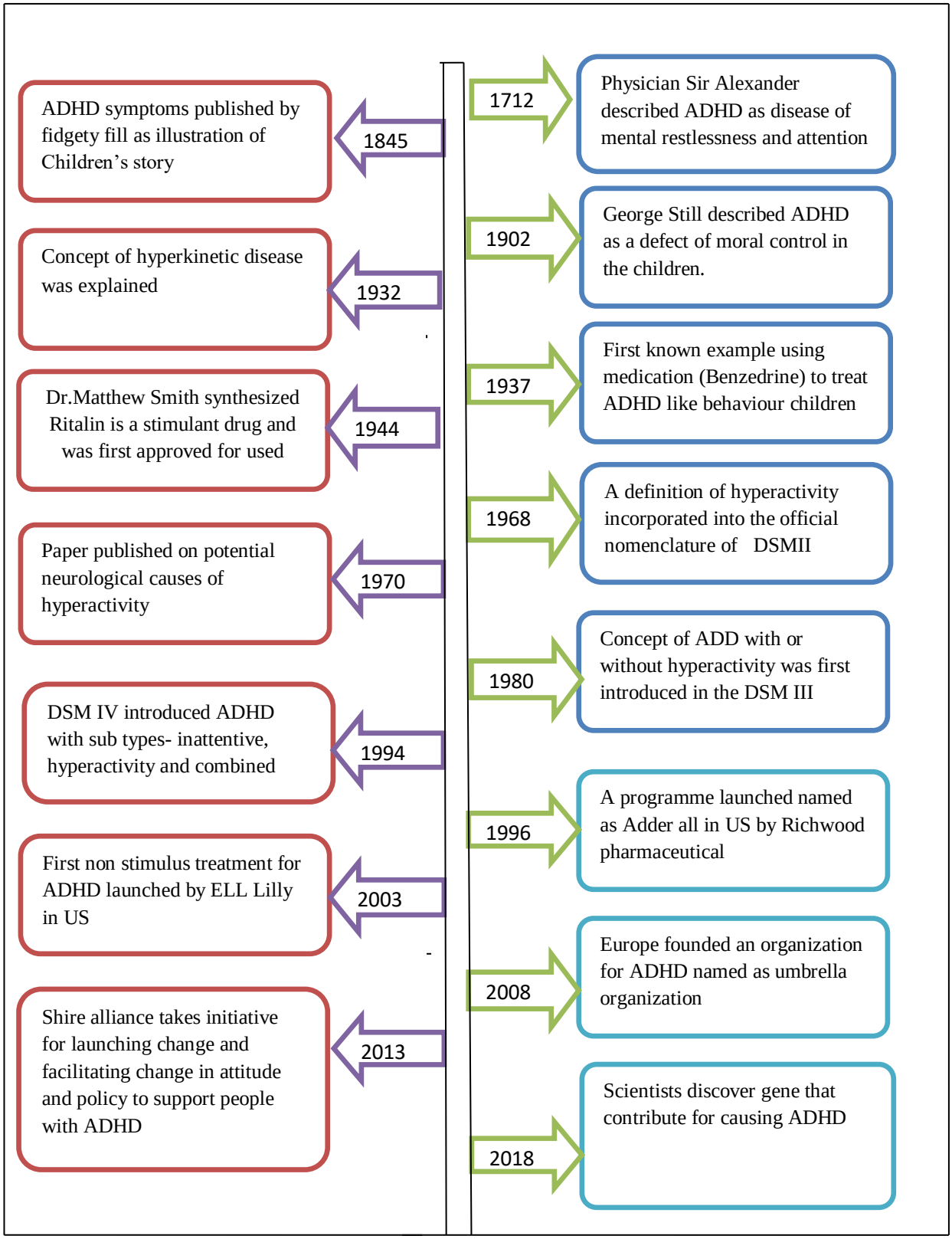
1712
Physician Sir Alexander described ADHD as disease of mental restlessness and attention
1845
ADHD symptoms published by fidgety fill as illustration of Children's story
1902
George Still described ADHD as a defect of moral control in the children.
1932
Concept of hyperkinetic disease was explained
1937
First known example using medication (Benzedrine) to treat ADHD like behaviour children
1944
Dr.Matthew Smith synthesized Ritalin is a stimulant drug and was first approved for used
1968
A definition of hyperactivity incorporated into the official nomenclature of DSMII
1970
Paper published on potential neurological causes of hyperactivity
1980
Concept of ADD with or without hyperactivity was first introduced in the DSM III
1994
DSM IV introduced ADHD with sub types- inattentive, hyperactivity and combined
1996
A programme launched named as Adder all in US by Richwood pharmaceutical
2003
First non stimulus treatment for ADHD launched by ELL Lilly in US
2008
Europe founded an organization for ADHD named as umbrella organization
2013
Shire alliance takes initiative for launching change and facilitating change in attitude and policy to support people with ADHD
2018
Scientists discover gene that contribute for causing ADHD

Figure.1.3 Chronological Development OF ADHD

1.1.2Types of ADHD

There are three type of ADHD which were divided on the bases of symptoms**.** Inattentive means a person show enough symptoms of inattention in his or her daily routine and hyperactivity occurs when a person have symptoms of hyperactivity and impulsivity but not in inattention.Combined means when a person have symptoms of inattention and hyperactivity and impulsivity in a combined form.

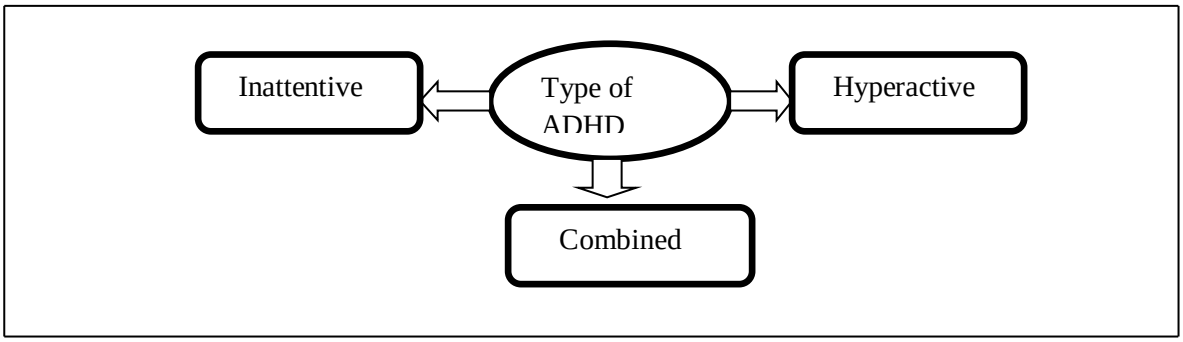

Figure1.4 Type of ADHD

1.1.3 Symptoms of ADHD (Attention Deficit Hyperactivity Disorder)

Symptoms of ADHD according to NICH (National institute of child health) it is a component of US Health Department. This institute found in 1962.

1.1.3.1 Symptoms of Inattentive Type

1. Children and adult with ADHD overlook or miss details, make careless mistakes in schoolwork, at work, or during other activities.

2. They have problems sustaining attention in tasks or play, including conversations, lectures, or lengthy reading.

3. They are not seemed to listen when spoken to them directly.

4. They do not follow instructions and fail to finish schoolwork, chores, or duties in the workplace or start tasks but quickly lose focus and get easily distracted.

5. They have problems in organizing tasks and activities, such as what to do in sequence, keeping materials and belongings in order, having messy work and poor time management, and failing to meet deadlines.

6. They avoid or dislike tasks that require sustained mental effort, such as schoolwork or homework, or for teens and older adults, preparing reports, completing forms or reviewing lengthy papers.

7. They lose things necessary for tasks or activities, such as school supplies, pencils, books, tools, wallets, keys, paperwork, eyeglasses, and cell phones.

8. Easily distracted by unrelated thoughts or stimuli.

9. Forgetful in daily activities, such as chores, errands, returning calls, and keeping appointments.

1.1.3.2 Symptoms of Hyperactivity-Impulsivity

1. They leave their seats in situations when staying seated is expected, such as in the classroom or in the office.

2. They Run or dash around or climbs in situations where it is inappropriate and it is also found that teens and adults often feel restless.

3. They are Unable to play or engage in hobbies quietly.

4. They Constantly in motion or "on the go," or act as if "driven by a motor.

5. They talk nonstop and fidget with hands and feet.

6. They blurt out an answer before a question has been completed, finish other people's sentences, or speak without waiting for a turn in conversation.

7. They have trouble waiting his or her turn.

8. Interrupt or intrude on others, for example in conversations, games, or activities.

Combined type of ADHD Include both inattentive, hyperactive both types of symptoms.

The previous century researches are witness of development in educational research. There are so many new teaching strategies developed which are helpful for improving learning. Among these is cooperative learning is based on the concept of positive interdependence among the learning group which make the individual trust the idea of other group member and their principles. Cooperative learning strategy is essential tool for solving the problems of ADHD students. With the help of this strategy teacher can be able to develop a true open connection between receivers and senders. Dr. Roger T. Johnson and Dr. David W. Johnson (Researchers, Professors, and Co-directors of the Cooperative Learning Center at

the University of Minnesota, Minneapolis, are national authorities and leaders on cooperative learning) explain that all learning situations can be structured so that students either compete with each other ("I swim, you sink; I sink, you swim"), ignore each other and work independently ("We are each in this alone"), or work cooperatively ("We sink or swim together").For making the learning environment teacher need to employ various kind of instructions which implement by various method and strategies. These instructions fulfill the diverse needs of students with various kinds of problematic behaviour which create obstacle in their learning.

1.1.4 Cooperative Learning Strategies

Cooperative learning sometimes called learning in small groups. It is an instructional learning strategy in which small groups of students work together.

According to Beth Lewis “cooperative learning is a form of active learning where students work together to perform a specific task in small groups.”

According to Dr. Steve Abel, Teach Children ,The Advantages of Cooperative Learning for Students with ADHD (2016) Cooperative learning involves a high degree of careful planning and structuring, and as such it is an excellent format for students to learn, including those with ADHD. When students are taught how to work as a team, and given the opportunity to learn and produce cooperatively with peers supporting one another in their learning, significant gains (academic and social) can be made by all. Cooperative learning is a teaching approach which organizes classroom teaching into academic and social way. There are large numbers of cooperative learning strategies available. Some of them employ students pairing while others use small groups of four or five students .There are so many form of cooperative strategy like Think Pair Share, Jigsaws, Number heads together, Tea Party, Round Robin, Write Around, Carousal etc. Researcher will employ these four forms of cooperative learning strategies. These four strategies have some difference in employing process.

1.1.4.1Think Pair Share Strategy In this cooperative strategy teacher poses a question to the students' then student have some minutes to think about it then all the students discuss it with students sitting next to him or her and then share it to the class.

1.1.4.2 Number Heads Together Strategy In this strategy students are placed in group and students are assigned a number in that group. In this strategy teacher poses a question and then when time is up than teacher calls a student by a number. And that student will share the idea with the class.

1.1.4.3 Write around Strategy In this strategy 3-4 students are placed in a group and teacher gives a topic to each group. It is important that question or idea posed have multiple answers. After the discussion students write their ideas on paper then pass it to the next group. Then next group can add up something to that idea.

1.1.4.4 Carousel Strategy In this strategy teacher form the group of 3-4 students and teacher place the chart around the room with different questions on certain topic then students try to resolve the problem within in the group and within the class.

For a number of practical reasons cooperative learning strategies are essential in today global era. Cooperative learning activities reflect the increasing diversity of today's global society. Cooperative learning strategies provide student opportunities to develop various kinds of skills like Self –Monitoring Skills, Social Skills etc which are necessary for working productivity from heterogeneous background and diverse ability level. Students with ADHD often have difficulty learning and functioning productively in unstructured group work. Cooperative learning involves a high degree of careful planning and structuring, and as such it is an excellent format for students to learn, including those with ADHD. When students are taught how to work as a team, and given the opportunity to learn and produce cooperatively with peers supporting one another in their learning, significant gains (academic and social) can be made by all. When students learn in cooperation they are encouraged to think about their own learning, thinking process and challenges. This process makes them become motivated to monitor

themselves to enhance their own learning. Cooperative learning strategies effect the Self Monitoring Skills of ADHD Students. Cooperative learning environment promotes independence, interdependence and self-motivation. Assessment is the integral part of cooperative learning strategies. With proper feedback and participation student get motive for their learning and it will helpful for various skills which are require for effective learning.

For getting successful academic records ADHD students need the various kinds of skills which will be gained from active participation in cooperative learning activities. Without developing these skills (such as, the ability to analyze and evaluate multiple perspectives, manage conflict, cope with change, and appreciate cross-cultural differences), students with ADHD are at serious risk of failing as adults in a global society. To help prevent this situation, cooperative learning strategies can be a practical solution. Classroom rules of cooperative learning strategies can also help ADHD students to keep focus on what is appropriate behaviour. According to Du Pal et.al "Teacher should offer praise when student are exhibiting appropriate behaviour."For getting praise they try to demonstrate appropriate behaviour, this process will help in developing their Self –Monitoring Skills and as well as their academic behaviour.

1.1.5 Self Monitoring Skills

Self-monitoring can be used to help children stay on-task (Amato-Zech, Hoff, & Doepke, 2006; Holifield et al., 2010; Legge, DeBar, & Alber-Morgan, 2010; Otero & Haut, 2016), decrease stereotypic or repetitive behaviors (Crutchfield et al., 2015), increase social interaction (Parker & Kamps, 2011); reduce behavior problems (Bruhn, McDaniel, & Kreigh, 2015), and improve academic performance in school (Falkenberg & Barbetta, 2013)

Self-management includes self-monitoring, goal setting, self-evaluation, self-instruction, and strategy instruction (Rafferty, 2010) Self monitoring skills used to keep track of your own action and performance. People use self-monitoring to help with all kinds of activities. Self monitoring skills are the skill of the individual to control, guide and regulate the behaviour and activity of himself or herself.

According to Traci Pedersen ‘’Self monitoring is the act of observing and regulating one’s own behaviour in a social context.” Self Monitoring skills are critical skills for learning. If students have high efficiency of Self –Monitoring Skills there will be a little chance to do careless mistakes. Elementary students will needed help to develop and employ these skills but middle or high school students can be expected to self monitor by themselves. Self-monitoring has been effectively used for preschoolers to adults with and without disabilities including learning disability, attention-deficit/hyperactivity disorder, behavioral problems, and ASD (Mooney et.all.2005)

Self-monitoring is considered part of an important educational outcome more recently titled self-determination. The following are six aspects of self-determination (Wehemeyer & Schalock, 2001):

• Choice-Making. • Problem-Solving. • Decision Making. • Goal Setting and Attainment. • Self-Management Skills. • Self-Advocacy and Leadership Skills.

Self-management skills include self-monitoring, self-evaluation, self-instruction, and self-reinforcement. There is some evidence that, for persons with disabilities, relative self-determination is related to quality of life. Change in teaching learning strategies also impacts the various skills and behaviour of the child that is the part of learning. Learning is the result of academic behaviour and skills of learner. When learner learns by the cooperative strategies they will learn in group process so it also effects their behaviour.

1.1.6 Academic Behaviour

Behaviour is the reflection of any mindset of the child in the form of his activities. Academic behaviour is the part of educational activity of a child. Academic behaviour affects the learning attributes of the child. Academic behaviour of the child is related to the executive functioning of brain. In a classroom academic behaviour of the child is affected by teaching inputs and classroom activities. In simple words Behaviour related to academic can be defined as academics behaviour which is affected by parental inputs, teacher inputs and students ’self inputs.

Academic behaviour is something of great importance to parents, teachers and students themselves. Even the larger society is aware of the long term effects of positive or negative academic behaviour since graduates from educational institutions are expected to shape the destiny of the society (Salami, 2001).

According to Webster 2006, "Academic behaviour refers to the manner, deportment or moral conduct that an individual encompasses."

Academic behaviour like going to classroom, doing homework, organizing materials, participating, studying can lead to good academic performance. Small difference in study habit, attendance, time spent on homework positively impacts academic performance. Academic behaviour means an improvement in the academic performance and outcomes starting with an improvement in the behaviour of the students. There are multiple ways of improving academic behavior by implementing various kinds of strategies, cooperative learning strategies can be one of them for improving the academic behaviour.

1.2.0 Emergence and Justification of the Problem

Education is the process of developing innate powers of child. As we know there are different kinds of innate power of child may be promoted due to presence and absence of educational problems. They may be related to students, teachers and parents etc. The ground bases for solving all the problems are various psychological theories, principles, and model and approaches.

Every student has an equal right to take education in an effective manner. In present era a dream classroom is a place where all kinds of students take education in a cooperative manner. As all x are not made equal as well as students have not equal capacity and attention etc. There are different kinds of students in a classroom with different attention abilities which may result in low attention capacity, distraction, hyperactivity and impulsivity. The distraction from the study may be due to several reasons: some of them are not interested in a particular subject; some of them are dislike to study vice versa. But sometime this attention distraction can be associated to a particular problem of child. The problem can be related to his or her attention. This attention problem can be associated with ADHD.

ADHD is one of the most common mental disorder which affect children. Symptoms of ADHD include inattention hyperactivity and impulsivity. In education they face problem in reading, mathematics, written expression, assignment completion and organizational skills. They face problems in sustaining and shifting attention, memory control higher level thinking emotion, problem solving and other complex movements. They have poor grades, low marks on standardized test scores. They face problems in social participation which creates obstacles in the development of life skills. Many ADHD symptoms, such as high activity level, difficulty remaining still for long period of time and limited attention spans are common to young children in general. The difference is that inattention and hyperactivity are noticeably greater than expected for their age group. The research in the field of ADHD circumvents a mighty ocean and the research in the field of teaching and learning is like a drop of water in the mighty ocean. When researcher goes to the depth of various studies researcher mind posed some questions like which teaching strategy is best for ADHD students. Researcher does not get access of any researches in which ADHD student have taught with various cooperative learning strategies. According to Johnson & Johnson (1993) Cooperative learning is the structuring of small groups so that student work together to maximize their own and each other's learning". These students have poor grades, poor academic behaviour and poor self monitoring skills so there is a need to be study how the cooperative learning effects the academic behaviour and self monitoring skills of ADHD students in the light of cooperative learning strategies. ADHD students having poor academic behaviour, poor grade and poor monitoring skills can definated improve them by using cooperative learning strategies which join hand of children in groups.

The prevalence of ADHD among primary school children was found to be 11.32 %.(Venkata Akam Jyotsna, 2013). As this prevalence rate of ADHD student is not so high but it is not negligible, there is need to take a effort for improvement the academic of ADHD.

Irencen M Loe, Heid Feldman (2007) Academic and Educational outcome of ADHD children points out that student with ADHD have poor grades, poor reading and mathematical abilities resulting hurdles in grade retention.

Attention is the most important factor in learning and it is influenced by the number of variable like family, IQ, motivation, socio economic status etc. According to oxford dictionary definition "Attention is regarded as mental faculty of considering or taking notice of someone or something''. As attention of the student is the part of mental faculty of the child. It is effected by both external and internal factor. It is true that attention is a selective activity of our mind and it is very important to determine our attention. Objective factor like movement, intensity novelty, change, repetition, clarity and subjective factor like interest, motives, mental set, emotional set, habit etc. Sometime this attention problem is associated to special kind of factor that is attention deficit hyperactivity disorder. Enhancing the capacity of learning is the duty of teacher. A teacher can enhance attention span of ADHD students by changing objectives and subjective factor of attention.

Natasha (2007) conducted a study on the Effect of music and dance therapy on children with ADHD by an intervention of 30 sessions of music and dance till 6 week and the effect was found to positive.

Judith, (2008) conducted a study on ADHD Attention-deficit/hyperactivity disorder (ADHD) associated with functional impairments such as social functioning. The purpose of this study is to critically review researches on social dysfunctioning in children with ADHD. The main finding of the study is the social dysfunctioning is also found in ADHD children.

Amori &Megan (2010), Influence of Anxiety on the Social Functioning of Children With and Without ADHD findings of the study is Anxiety may contribute to the peer problems of children both with and without ADHD.

Shetty & Rai, (2014) conducted a study on awareness and knowledge of ADHD among primary school teacher in India. The finding of the study that teachers could play a significant role in identifying children with ADHD.

Andrew Petshe, (2016), Effect of yoga on student diagnosed with ADHD finding of this study indicates that yoga as an intervention can help students with ADHD.

Capodieci, Agness & et.all (2016) A cooperative learning classroom intervention was implemented for increasing peer acceptance of children with ADHD, Finding of this study indicate that change occurs only in when children with ADHD taught in a cooperative manner.

Alsalamah Areej, (2018) conducted a study Attention Deficit Hyperactivity Disorder among Minority Children: Diagnoses, Treatment and Challenges .The results indicated that the complex nature of ADHD can be associated with many factors that help in diagnosing of ADHD symptoms.

Sharan (2010) studied "Cooperative learning: a diversified pedagogy for diverse classroom"

a culturally responsive teaching implies using CL methods and strategies to discover the students' world and incorporate them into the world of classroom.

Howell (2013) studied "Introducing Cooperative Learning into a Dynamics Lecture Class" Numerous references have suggested that cooperative learning can significantly increase student understanding. Through a series of cooperative problem solving exercises "lecture'' classes become more active learning environments.

Tshewang, (2017) The Effect of Using Cooperative Learning Method on Tenth Grade Students' The attitude analysis showed that their attitude towards biology improved as indicated by the increase in the level of interest, understanding, satisfaction and their assessment of biology as a less difficult subject.

Sarena, Jenkins &et.all (1999), Effect of Self - Monitoring of Academic Performance on students with learning disabilities and ADD/ADHD. The result of this study indicates that self-monitoring is an effective tool for improving academic aspects and attention behaviour.

Sherrie Mechan, (2003), Effect of Self Monitoring Checklist and performance feedback on study skills of college student with disabilities. The result showed that three students markedly increased the accurate use of notetaking and study guide skill immediately.

Agran Martin, Sinclaur Thomas, Wehemeyer Michael, (2005), Using Self Monitoring to increase following direction skills of students with moderate to serve disabilities in general education. Result suggested that strategy was a good tool for promoting the direction skills.

Carrie & Winfield (2010) in this study self graphing intervention were used for improving the academic skill. Purpose of the study was to examine the effect of self graphing intervention. Students who participated in the process had demonstrated the high level of growth in their academic skill.

Long Lorie, (2011), Self Monitoring using a motive aider during independent work time to increase on task behaviour. Result indicated that participants were able to increase their task behaviour. Implication suggests that use of modern technology can be beneficial to student.

Jim, (2013**)**, How To Teach Students to Change Bahaviour through Self-Monitoring. Findings focused that the student measures and records his or her own behaviour (measurement), and then compares that recorded behaviour to a pre-determined standard (evaluation).

Daly & Patty, (2014) focused on Using Countoons to Teach Self-Monitoring Skills**;** many general education teachers teach larger numbers of students at one time than do teachers of special education, Self-contained classrooms.

Rachel Michelle (2016), Study skills self monitoring for adolescent with ADHD, here researcher points out that how self monitoring affect the academic progress. In this study student were monitored finding is that there is progress have seen in two students grades.

Hallgeir & Nilsen, (2009), Influence on Student Academic Behaviour through Motivation, Self Efficacy and Value- Expectation: An Action Research Project to Improve Learning was conducted to increase student learning Universities need more focus on and more use of pedagogical knowledge, to positively influence student academic behaviour.

Richelle I Rogel, (2012), conducted a study to determine the relationship between academic behavior and academic performance .Significant relationship exists between the academic behavior and the academic performance of the student-respondents.

Valerie Mc Gaha, Garnett (2013), The Effects of Violence on Academic Progress and Classroom Behaviour. Educators play a pertinent role for children who are emotionally sensitive and socially inept by providing a safe haven and learner-centered environment.

Narmene Hamsho, (2017) conducted a study The Impact of Classroom Behaviors and Student Attention on Written Expression. When examining gender differences between these predictors, the APRS and SWAN were identified to be significant predictors for writing fluency among female students.

Findings of various studies revealed that there is need to pay special attention towards ADHD student because such student requires active participation for sustaining their attention. With the help of cooperative strategies they can able to sustain attention and manage their hyper -activeness.

As the ADHD students have many behaviour problems. Academic behaviour is the main cause of poor grades. It affects their learning attributes .As cooperative strategy affect the sociomatric status of ADHD. Here researcher wants to study the effect of cooperative strategies on academic behaviour. With the help of cooperative strategies classroom behaviour can be changed and also the academic behaviour of ADHD students.

On doing a rigorous exercise on the researches reviews the researcher found that ADHD was a field of inclusive education which needs to be focused to increase the attention abilities of students. The researches done in the field of ADHD revealed lacunae in the researches. As most of them were focused on their diagnosis, prevalence and a relationship with academic achievement, monitoring skills, yoga and effect of cooperative strategies of learning.

The review of the researches done in the field of ADHD around some quarries in the mind of researcher like:

-How the improvement of ADHD students in learning is made feasible?

-Is there any relation between their academic performance and their functional skills?

-What is the role of self-monitoring to control the behaviour and enhance the attention of ADHD students?

_ Does Self Monitoring Skills help in improving the academic behaviour and self management of ADHD students?

-How various strategies of learning promote skills and learning of these students?

-How cooperative strategies develop a facilitative learning environment to ADHD students.

To satisfy the curiosity aroused about the questions in the mind of the researcher and to find out the answers for the quarries the researcher decided to focus her research upon the Academic Behaviour and Self-Monitoring Skills of ADHD students and effect of various strategies on the quality and Skills of ADHD students. Thus this study of research will be helpful to parents and teachers of ADHD and also for ADHD students by implementing cooperative strategies in the teaching learning process.

Hence the researcher framed her topic of research as "Effect of cooperative learning strategies on the academic behaviour and self –monitoring skills of ADHD students.

1.3.0 Statement of the Problem

Effect of Cooperative Learning Strategies on the Academic Behaviour and Self Monitoring Skills of ADHD (Attention Deficit Hyperactivity Disorder) Students.

1.4.0 Defining the Term

In the present study definitions are given below:

1.4.1 Attention Deficit Hyperactivity Disorder (ADHD)

According to Merriam Webster Dictionary (2003) Medical definition "A syndrome of disordered learning and disruptive behaviour that is not caused by any serious underlying physical or mental disorder and that has several sub types characterized by symptoms of inattention or primarily by symptoms of hyperactivity and impulsive behaviour ."

Operational Definition

ADHD is a condition in which students have symptoms of inattention , hyperactivity and impulsiveness, facing problems in reading, mathematics and written expression and inability in classroom behaviour like maintaining relationship with peers , completing assignments and disrupting in classroom activities.

1.4.2 Cooperative Learning Strategy

According to Beth Lewis (2017) "cooperative learning is a form of active learning where students work together to perform specific tasks in a small group. Each cooperative learning group should be carefully selected by the teacher so that a heterogeneous structure allows each student to bring his or her strength to the group effort."

Operational Definition

Cooperative learning strategies are those strategies implemented in the process of learning in a cooperative manner with various kinds of interactions among students and between teacher and students.

1.4.3 Academic Behaviour

According to Akinade (2001) Academic behaviour points to individuals disposition to academic activities including lecture attendance, participation in tutorials, submission of assignments, use of library, study habits, note-taking and preparation for examinations.

According to Webster dictionary, 2006, "Academic behaviour refers to the manner, deportment or moral conduct that an individual encompasses."

Operational Definition

Academic behaviour is that observable behaviour manifested during the conduct of various academic activities like learning, attention, and study habits, skills, manipulation and self monitoring accomplished during teaching learning situations of a classroom.

1.4.4. Self -Monitoring Skills

According to Smith and Nelson (1997) " self monitoring is necessary skill for self regulated behaviour."

According to Wehemeyer,Agran, Hughes (1999) & Whitman, (1990) "Self monitoring is useful in tracking how often a behaviour occurs or does not occur as part of an action plan"

Operational Definition

Self - Monitoring Skills are the skills of observing the activity and behaviour by him/herself. By these skills individual try to operate their classroom performance by observing and maintaining record of their behaviour.

1.5.0 Objective of the Study

1. To study the Academic Behaviour of ADHD students.
2. To study the Self-Monitoring Skills of ADHD Students.
3. To study the effect of cooperative learning strategies on the Academic Behaviour of ADHD Students.
4. To study the effect of cooperative learning strategies on the Self -Monitoring Skills of ADHD Students.

1.6.0. Hypothesis of the study

1. There is no significant difference in the pre-test and post-test Academic Behaviour scores of ADHD Students taught by cooperative learning strategies.

2. There is no significant difference in the pre-test and post-test Self-Monitoring Skills scores of ADHD Students taught by cooperative learning strategies.

1.7.0 Delimitation of the Study

1. Present study has been delimited to schools of Agra City.

2. Present Study has been delimited to the upper primary level.

3. Present Study has been delimited to the U.P Board School only.

4. Present Study has been delimited to one subject of teaching: Geography only.

1.8.0 Methodology of the Study

The researcher has laid down the following methodology:

1.8.1 Variable of the Study

Independent Variable-1.Cooperative Learning Strategies- (a) Think Pair Share Strategy (b) Number Heads Together Strategy (c) Write around Strategy (d) Carousal Strategy

Dependent Variables- 1.Academic Behaviour 2.Self-Monitoring Skills

Control Variable 1.ADHD

1.8.2. Method of the Study The researcher has laid down the following method in relation to this study. In this study Quasi –Experimental method will be used by the researcher.

1.8.3 Sampling of the Study

Researcher has laid down the following sampling design in the study:

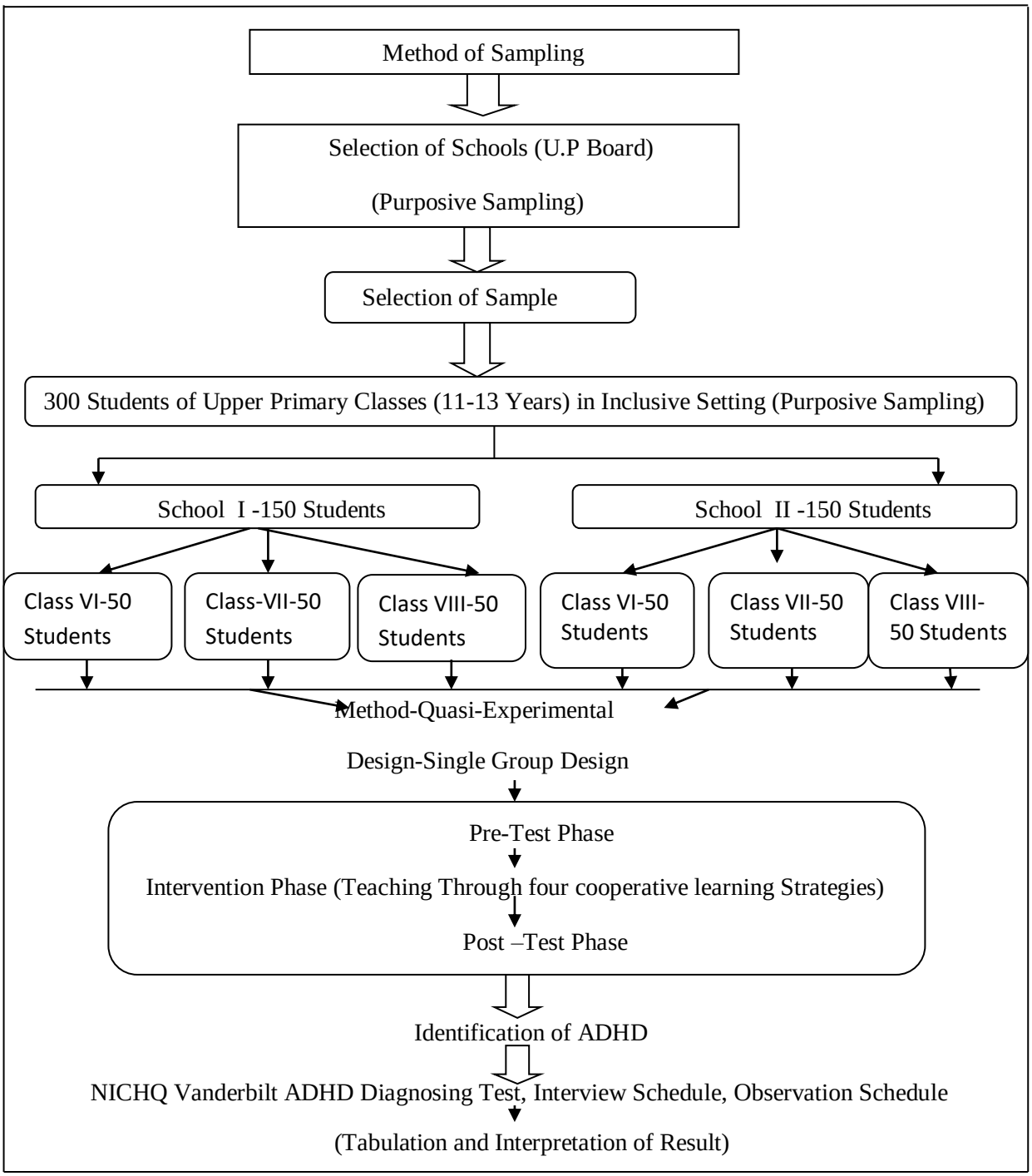
Method of Sampling
Selection of Schools (U.P Board)
(Purposive Sampling)
Selection of Sample
300 Students of Upper Primary Classes (11-13 Years) in Inclusive Setting (Purposive Sampling)
School I -150 Students
School II -150 Students
Class VI-50 Students
Class-VII-50 Students
Class VIII-50 Students
Class VI-50 Students
Class VII-50 Students
Class VIII-50 Students
Method-Quasi-Experimental
Design-Single Group Design
Pre-Test Phase
Intervention Phase (Teaching Through four cooperative learning Strategies)
Post –Test Phase
Identification of ADHD
NICHQ Vanderbilt ADHD Diagnosing Test, Interview Schedule, Observation Schedule
(Tabulation and Interpretation of Result)

Figure.1.5 Sampling Design of the Study

A sample of 300 students of upper primary classes will be taken as sample from UP board schools and they are selected purposively as per the acceptance to conduct the intervention in inclusive setting. These

students will be taught by using four cooperative strategies (1.Think Pair Share Strategy, 2.Number heads together Strategy, 3.Write Around Strategy, 4.Carousal Strategy) .As the intervention process is done under inclusive settings the researcher will be teaching them in an equal manner using cooperative strategies and the Identification process of ADHD students will be done after the intervention and the identified ADHD sample of students information will be kept confidential. This identification isolates ADHD after intervention so that the researcher can interpret the result obtained to explain the effect of cooperative learning strategies upon ADHD students.

1.8.4Research Design of the Study

Researcher has lay down following research design for the study:

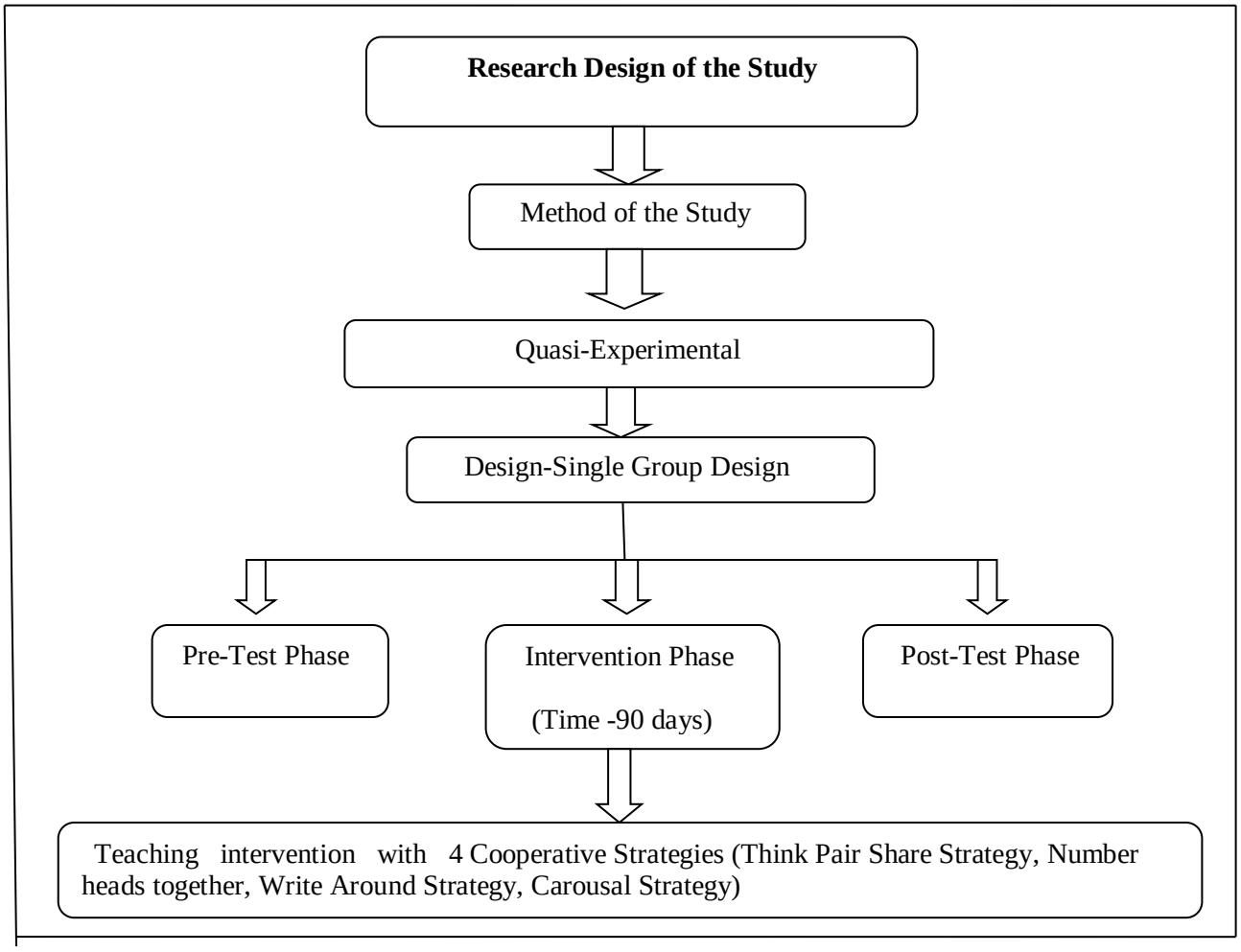
Research Design of the Study
Method of the Study
Quasi-Experimental
Design-Single Group Design
Pre-Test Phase
Intervention Phase
(Time -90 days)
Post-Test Phase
Teaching intervention with 4 Cooperative Strategies (Think Pair Share Strategy, Number heads together, Write Around Strategy, Carousal Strategy)

Figure1.6 Research Design of the Study

1.8.5 .Tools of the study

Tools serve as important purpose in empirical research by providing a good base to research for collecting data. A meaningful and applicable research needs valid, reliable, suitable, interpretative economic and unusable tool to meet the requirement of the study. In any scientific study the selection of the tools and technique depends upon the nature of the problem and kind of data necessary.

Researcher has lay down the following tools for the study

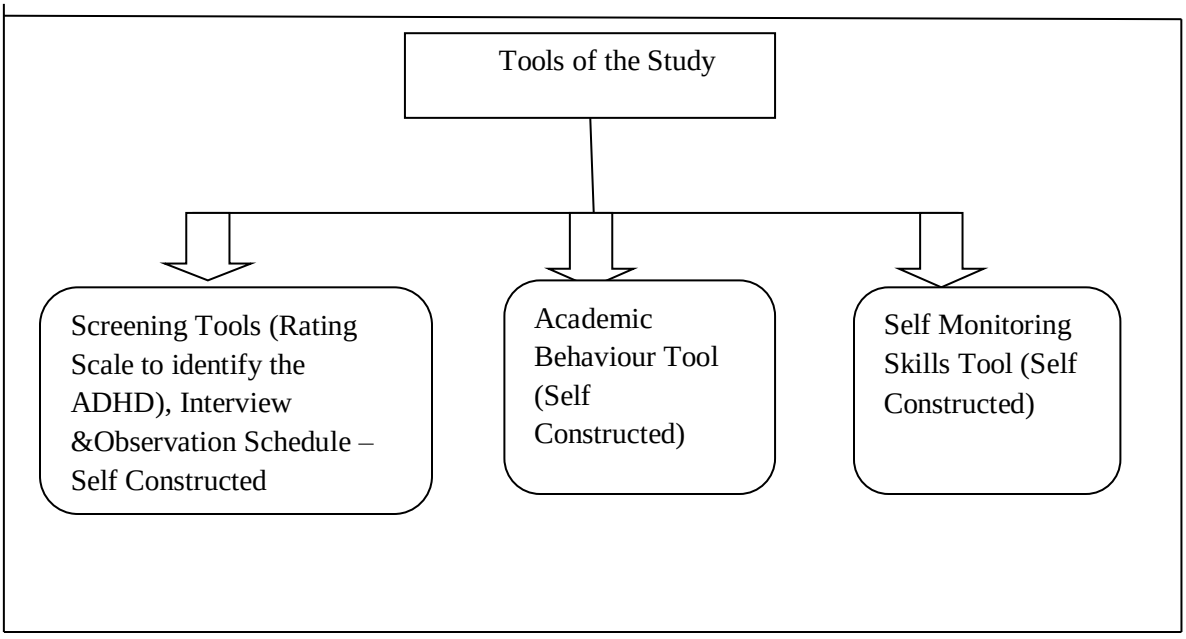
Tools of the Study
Screening Tools (Rating Scale to identify the ADHD), Interview &Observation Schedule – Self Constructed
Academic Behaviour Tool (Self Constructed)
Self Monitoring Skills Tool (Self Constructed)

Figure 1.7 Tools of the study

1.8.5.1 Tool for Identification of Attention Deficit Hyperactivity Disorder (ADHD) Students

NICHQ Vanderbilt Assessment Scale is a tool for diagnosing attention deficit hyperactivity disorder (ADHD).It is developed by Mark L Wolrich in 2002.

Interview Schedule-Self constructed interview Schedule will be used.

Observation Schedule-Self Constructed observation Schedule will be used.

1.8.5.2 Tool for Academic Behaviour

In this study self constructed Academic Behaviour tool will be used.

1.8.5.3 Tool for Self-Monitoring Skills

In this study self constructed Self-Monitoring Skills tool will be used.

1.8.6 Statistics of the study

This study will lay down the following statistics:

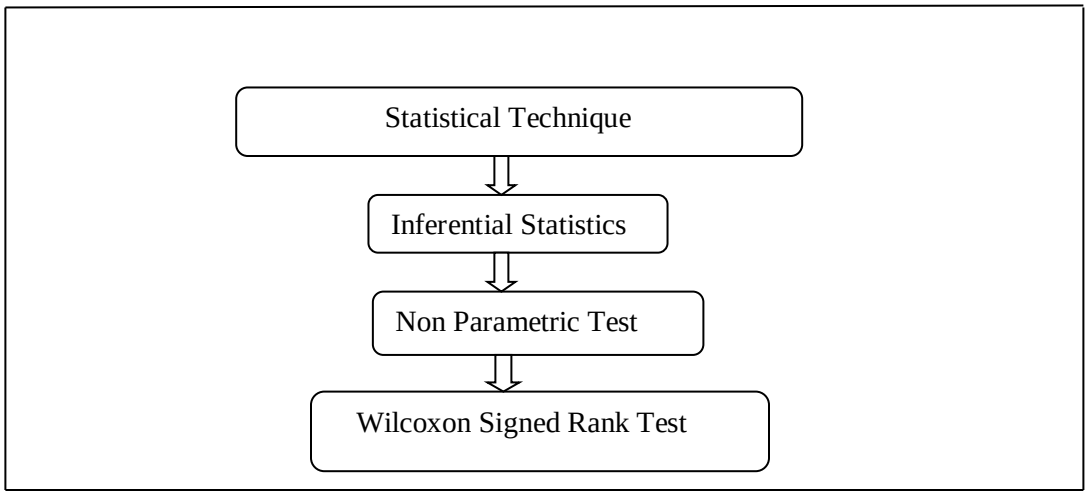

Figure1.8 Statistics techniques of the study

Researcher will be using the non parametric test due to the following reasons:

1. Non parametric tests are distribution free. They do not assume that score under analysis are drawn from population distributed in a certain way eg. from a normally distributed population. Data will not be fulfilling the assumptions of parametric test such as random sampling, normal distribution etc. So the researcher will be using the non parametric test for analysis of the data.

2. When N is quite small or the data are badly skewed so that assumption of normality is doubtful and use of parametric test will be difficult to implement In this condition non parametric test will enable us to compare sample and to make inferences or test of significance without having the assumption of normality in the population.

3. Researcher will analyze the difference of pre test and post test scores of Self- Monitoring Skills and Academic Behaviour. As in case of dependent sample or related sample in non parametric statistics Wilcoxen sign test will use.

4. Wilcoxen signed rank test does not require multivariate normality or homoscedasticity it is more robust than the dependent sample t test.

1.9.0 Significance of the study

Research is a process of creation of knowledge which leads to new and efficient solution for the problems of society. As the research is a process of searching something but the beauty of research is not only searching something but also its beauty lies in its purity of whole as well as its benefits for the society. The art of research is lying in its work, how artistically a researcher applied the various scientific systematic solutions of the problems. Present study is based on the population which faced problems in daily life, learning and other work. They faced problem in focus attention in simple and as well as complex activity. If we think about problem it looks small. But the person who being to have a capacity do things but due to their attention issues they faced lot of problems in their life.

In the present study some effort will be done for solving the problems of such children. Researcher will know that her work is like a drop of water in the ocean but doing something is better than nothing for such field. During every learner faces barriers that come in the path of receiving knowledge. With the help of various researches we find the solution of removing such obstacles in the learning of ADHD students. Attention issue is greater obstacles in the learning of ADHD students. Basically such students have lot of energy but they do not how to engage themselves in particular activity attentively.

Cooperative learning strategies will be beneficial for such students. It opens a path for engaging in the attention of ADHD students. They usually face problem in focus attention. By the using these strategies they think about the problem they discuss with peers and they learn in small groups. Participants and the engagement of students in activity increase the level of their focus on attention. They shift their attention in a positive direction. It also enhances their social behaviors skills, cooperation skills, so that they can control their academic behaviour and self monitoring themselves.

As various researches are witnesses that cooperative learning strategy is based on positive interdependence among the students group. This interdependence process develops trust among students to each other it gives birth to the feeling of agreement between sender and receiver. Cooperative learning strategy provides platform for getting social experience. Student became observer of each other learning. By observing or hearing each other response they can learn in the better way. Social experience and cooperation among student also result in developing social skills ,classroom participants attendance etc. Teaching by various cooperative strategies improves the academic behavior of students that result in reduce attention deficit.

Self Monitoring is the conscious appraisal of immediate past behavior. When student assesses behavior and try to monitor behavior and try to understand the weakness and strength of their behavior. It results in improving the academic behavior which is the combination of study skills, organization skills , motivation, compliance planning ,attention etc.

Weak self monitoring skills are the symptom of ADHD students. Actual real problem with self monitoring skill and low attention problem is that they have poor academic behaviour. When student learn with cooperative learning strategy they learn in a systematic manner with participation. They will become engaged in social way of learning. All these influence their self monitoring skills and academic behaviour. Cooperative learning strategies can have positive effect over the Self Monitoring Skill and Academic Behaviour of ADHD Students.

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